

REMARKS/ARGUMENTS

Claims 10, 13, 39, 41, 43, 59, 75, 83, and 98 have been amended without intending to abandon or to dedicate to the public any patentable subject matter. Accordingly claims 10-102 are currently pending.

Claim Objections

The Examiner has objected to claim 39 because it refers to “a indicator” rather than “an indicator.” Claim 39 has been amended per the Examiner’s suggestions.

Applicants’ note with appreciation the Examiner’s indication that claims 41, 42, 83, and 98-102 would be allowable but for their dependence from a rejected claim.

Claims 41, 83, and 98 have been rewritten in independent format and include all of the limitations of the claims from which they were previously dependent. Accordingly, claims 41, 83, and 98 should be allowable.

Claim Rejections

The Examiner has rejected claims 10, 14, 15, 25, 38-40, 43, 52, 59, 65-69, 71, 75, 81, 82, 88, 89, and 95 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,061,614 to Carrender et al. (hereinafter “Carrender”). The Examiner has also rejected claims 10-13, 20, 21, 27, 29, 31, 35, 36, 38, 43, 44, 48, 54-57, 63-65, 73-75, 81, 84, 87, 88, and 94 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,054,935 to Urbas et al. (hereinafter “Urbas”). In order for a rejection under 35 U.S.C. §102 to be proper, each and every element as set forth in a claim must be found, either expressly or inherently described, in a single prior art reference. (MPEP §2131). However, all of the claim limitations set forth in the pending claims cannot be found in either Carrender or Urbas.

The Examiner has also rejected claims 26, 28, 53, 70, 90, and 96 under 35 U.S.C. §103(a) as being unpatentable over Carrender. The Examiner has also rejected claims 16-18, 32, 33, 44-46, and 76-80 under 35 U.S.C. §103(a) as being unpatentable over Urbas in view of U.S. Patent No 5,952,935 to Mejia et al. (hereinafter “Mejia”). The Examiner

has also rejected claims 19, 22, 23, 47, 49, 51, 60, 61, 72, 85, 91, and 92 under 35 U.S.C. §103(a) as being unpatentable over Urbas in view of U.S. Patent No. 6,791,457 to Shimura (hereinafter “Shimura”). The Examiner has also rejected claims 24, 50, and 62 under 35 U.S.C. §103(a) as being unpatentable over Urbas in view of Shimura and further in view of U.S. Patent No. 5,887,176 to Griffith et al. (hereinafter “Griffith”). The Examiner has also rejected claims 37, 86, and 93 under 35 U.S.C. §103(a) as being unpatentable over Urbas in view of Griffith. The Examiner has also rejected claims 30, 34, and 58 under 35 U.S.C. §103(a) as being unpatentable over Urbas. Finally, the Examiner has rejected claim 97 under 35 U.S.C. §103(a) as being unpatentable over Carrender in view of U.S. Patent Application Publication No. 2002/0095980 to Breed et al. (hereinafter “Breed”). In order for a rejection under 35 U.S.C. §103 to be proper, the prior art references must teach, suggest, or make obvious all of the claim limitations. (MPEP §2143). However, all of the claim limitations set forth in the pending claims cannot be found in any of the above-noted references. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

More specifically, Applicants respectfully submit that neither Carrender, Urbas, Mejia, Shimura, Griffith, nor Breed teach, suggest, or render obvious at least the following italicized features of the previously presented independent claims:

10. An interrogation apparatus for communicating with at least one transponder, comprising:

at least one antenna portion operable to transmit an interrogation signal to the transponder and to receive a data signal from the transponder;

a processing portion operably interconnected to said at least one antenna portion operable to receive the data signal, *determine the presence or absence of body characteristic data within the data signal based on an indicator within the data signal, and when the presence of body characteristic information is detected, decode the data signal to obtain at least said body characteristic information;* and

an output portion operable to output, when the presence of body characteristic information is detected, said body characteristic information.

43. A system for identifying an object and a body characteristic associated therewith, comprising:

an interrogator operable to transmit an interrogation signal; and
a transponder operable to receive said interrogation signal and generate a data signal, said data signal including at least one of identification information and body characteristic information associated with the object, wherein:

 said interrogator is further operable to receive said data signal and determine the presence or absence of said body characteristic information within said data signal, *determine the presence or absence of identification information within said data signal based on an indicator within the data signal, and output at least one of said identification information and body characteristic information.*

59. A method for identifying an object and a characteristic associated therewith, comprising the steps of:

 transmitting an interrogation signal from an interrogator;
 receiving said interrogation signal at a transponder;
 transmitting an encoded data signal including at least one of identification information and characteristic information from said transponder to said interrogator;

 receiving said encoded data signal at said interrogator;
 decoding said data signal to determine the presence or absence of said identification information and the presence or absence of said characteristic information based on an indicator within the data signal;
 and

 outputting at least one of said identification information and characteristic information.

75. A method for interrogating a transponder, comprising:
 transmitting an interrogation signal;

 detecting a response signal generated from the transponder in response to said interrogation signal;

 determining a format of said response signal;
 decoding identification information encoded within said response signal;

determining if body characteristic data is included in said response signal based on an indicator within the data signal; and
 when body characteristic data is included in said response signal, decoding said characteristic data.

95. An interrogation apparatus for communicating with a transponder, comprising:

at least one antenna operable to transmit an interrogation signal to the transponder and to receive a data signal from the transponder;

a processing portion operably interconnected to said at least one antenna operable to receive the data signal, decode the data signal to obtain identification information contained therein, *and when the data signal includes an indicator, to further decode the data signal to obtain body characteristic information contained therein;* and

an output portion operable to output said identification information and, when said indicator is detected, output said body characteristic information.

The present invention is directed generally toward an interrogation apparatus, method, and system that has the ability to determine the presence/absence of body characteristic data within the data signal. A general interrogation signal may be sent to the transponder to activate the transponder. In response to this activation, the transponder sends out all of the information that it is able to collect to the interrogator. This data may or may not necessarily include body characteristic data and whether or not such data is included does not necessarily depend upon the interrogation signal received from the interrogator. The interrogator is then operable to determine the presence or absence of the body characteristic data within the data signal. This determination may be made based on an indicator that may or may not be a part of the signal transmitted back to the interrogator.

Carrender

Carrender is directed toward an interrogator that sends a specific command to the transponder asking for specific information in response to the interrogation signal transmitted from the interrogator. The transponder is then operable to determine what data is to be retrieved from the J-bus and what data is to be sent based on the received interrogation signal. In other words, the interrogator defines the type of data that it desires to receive in its interrogation signal and the transponder is operable to read the interrogation signal to determine what type of data should be retrieved from the J-bus.

The transponder then retrieves the necessary data and transmits it back to the interrogator. The interrogator of Carrender does not determine whether body characteristic is present or absent in the signal. Rather, it simply receives all of the data it requested and processes it accordingly. There is no determination step described in Carrender where the interrogator determines the presence or absence of body characteristic information in received signal. Conversely, if any determination is made by the Carrender system, it is the transponder and not the interrogator that determines the data to be retrieved from the J-bus and what data is to be sent to the interrogator. Moreover, Carrender does not utilize an indicator within the signal that can be used to determine the presence or absence of body characteristic data in the signal and therefore there is no teaching of this concept in Carrender. Accordingly, Carrender fails to teach, suggest, describe, or otherwise render obvious the independent claims or dependent claims presently pending in the application.

Urbas

Urbas is directed toward a transponder that always outputs a data signal that includes a preamble portion (e.g., an identification code and temperature data). The transmission is a continuous, cyclic data stream containing ID and temperature information. This information is received by the interrogator. In other words, Urbas teaches a system where the temperature data is always present in the data signal and is always received by the interrogator. It follows that there is no reason or need for the interrogator of Urbas to determine the presence or absence of body characteristic data. For this same reason, there is no statement found in Urbas to indicate that the interrogator has such a need or capability to distinguish or determine the presence or absence of temperature data and it would be illogical if there was one. Instead, the processing portion of the interrogator of Urbas always reconstructs the ID data and the temperature information from the signal received from the interrogator. Applicants respectfully submit that Urbas teaches away from determining the presence or absence of body characteristic data. This is evidenced by the fact that the temperature data is always transmitted by Urbas and there is thus no need to make any determination about whether

such data is available. The signal is decoded and the temperature data is always extracted. Accordingly, Urbas fails to teach, suggest, describe, or otherwise render obvious the independent claims.

The Examiner has interpreted Urbas to inherently teach determining the presence or absence of body characteristic data in a received signal by reasoning that since the interrogator of Urbas has to decode the data signal to obtain the body characteristic information, the presence of body characteristic data must be, somehow, detected. Applicants respectfully disagree with this assertion that Urbas inherently teaches detecting the presence or absence of body characteristic information. More specifically, decoding a bit stream and extracting body characteristic information is not analogous nor does it inherently include affirmatively performing a step of determining the presence or absence of body characteristic data. The Examiner has admitted that Urbas does not explicitly teach a determining step and the Applicants believe that it would be improper to conclude that a decoding step inherently includes a determining step.

Furthermore, Urbas appears to describe a device that is designed to detect one kind of telegram structure wherein different portions (*e.g.*, preamble, temperature data, and ID data) always exist within the same telegram structure. Certain embodiments of the present invention, on the other hand, can differentiate between different formats or telegram structures such as the FDXA telegram structure, the FDXB telegram structure, and other known telegram structures listed in the ISO standard 11785 and determine whether the body characteristic information is present or absent in these different telegram structures.

Mejia

Mejia is directed toward an interrogator for use with a plurality of identification systems using different frequencies and different methods of demodulation and decoding. Mejia is relied upon primarily to show that data transmission standards may include ISO standard 11785, FDXA, and FDXB. However, there is no teaching, suggestion, motivation, or disclosure of any kind in Mejia to determine the presence or absence of

body characteristic information in a data signal received at an interrogator. Accordingly, Mejia does not overcome the shortcomings of Urbas and does not render any of the currently pending claims obvious alone or in proper combination with any of the other references.

Shimura

Shimura is directed toward a system that comprises a data transmission-reception unit which operates by means of energy of a received electromagnetic wave and serves as a main circuit. The transmission-reception unit is provided with a sensor circuit as an additional circuit and can communicate with a transponder having a sensor power circuit for supplying electric power only to the sensor circuit. Shimura is relied upon primarily to show that an interrogator may include a display operable to output at least one of identification information and body characteristic information. Shimura does not, on the other hand, teach, suggest, describe, or otherwise disclose determining the presence or absence of body characteristic information in a data signal received at an interrogator and therefore does not overcome the shortcomings of Urbas and does not render any of the currently pending claims obvious alone or in proper combination with any of the other references.

Griffith

Griffith is directed toward a system that utilizes radio frequency circuitry in combination with microprocessor devices to provide an improved structure and operation for monitoring, protecting, and controlling inventory assets. Griffith is relied upon primarily to show that an input portion of an interrogator may include a connection to an external device which provides a signal to generate the interrogation signal so that a user can remotely operate the interrogator. Griffith does not teach, suggest, describe, or disclose determining the presence or absence of body characteristic information in a data signal received at an interrogator. Accordingly, Griffith does not overcome the

shortcomings of Urbas and does not render any of the currently pending claims obvious alone or in proper combination with any of the other references.

Breed

Breed is directed toward an arrangement and method for monitoring tires mounted to the vehicle in which thermal radiation detecting devices are arranged external of and apart from the tires for detecting the temperature of the tires. Breed is primarily relied upon to show that an interrogation apparatus may be used in connection with monitoring temperature conditions. Breed does not teach, suggest, describe, or disclose determining the presence or absence of body characteristic information in a data signal received at an interrogator and thus does not overcome the shortcomings of Carrender and does not render any of the currently pending claims obvious alone or in proper combination with any of the other references.

The dependent claims provide additional reasons for allowance. For example, dependent claim 12 is substantially similar to allowable claim 98 in that it provides a processing portion operable to detect at least two different formats of data within said data signal and operable to detect the presence or absence of body characteristic information within each format of data. The Examiner has previously indicated that none of the cited references teach such an interrogator. Accordingly, Applicants respectfully submit that claim 12 is allowable in view of the prior art.

As another example, claims 44-46 provide an interrogator that is operable to detect at least two formats of data within a data signal. As noted above, Urbas does not teach an interrogator that is operable to detect at least two different formats of data within a data signal. Instead, Urbas only appears to disclose detecting one kind of telegram structure where different portions always exist within the same telegram structure.

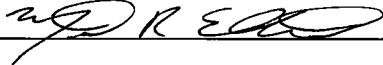
As still another example, claims 25-33, 52, 53, 63-71, 79-82, 87-90 provide in various degrees of specificity the use of one or more telegrams to transmit body characteristic data.

Application No. 10/634,311

Based upon the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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